Estimating the Size of Black Economy in India

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The issue of black economy is a hotly debated issue in India and it has been the key target of policy action from last four decades. The debate is further fueled by demonetization of higher currency notes in the country. In this context, we estimate the size of black economy in India for the period 1970-2013. A currency demand approach is adopted for this purpose. The test of structure break indicates for a break in the system therefore we employ Johansen et al. (2000) cointegration test. For estimating the empirical model we utilize fully modified ordinary least squares (FMOLS) for taking care the endogeneity problem. The estimates indicate that the Indian economy has a sizable black economy. Specifically, in the last estimated year, 2013, it is computed to be US$957 billion or 52% of the Indian GDP. Nevertheless, since early 1990s, perhaps because of a range of fiscal reforms, it has been decreasing. In the light of these findings, policy implications are brought out.

Keywords: Black economy, taxation, structural break, India.
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1. Introduction

In the recent years, the issue of the black economy[1] is one of the hotly debated issues in India. Recently, in order to curb the black economy, to government has "demonetized" the two most valuable notes, of 500 and 1000 rupees (US $7.50 and US $15). The notes that have been nixed constituted 86% of all cash in circulation in the country.[2] The government expects that the demonization eliminates black economy from the economy as it will be blocked since the owners will not be in a position to deposit the same in the banking system due to possibly be caught by the tax department.[3] Despite such strong step, which causes some serious inconvenience to people, the size of the black economy is unclear in the country, it has been widely speculated by various economic, political and other interest groups.

The very nature of the shadow economy makes its measurement a difficult and challenging assignment. Nevertheless, the related literature witnesses several attempts to estimate the size of black economy in different countries and regions. In terms of approaches, the empirical attempts can be classified in three types in: first, direct and micro level method, such as surveys on firms, households, tax auditing and other compliance methods. Sample surveys are widely used in a number of countries to measure the shadow economy. The approach is used for several researchers, for instance, Isachsen et al. (1982) for Norway, Mogensenet al. (1995) for Denmark, Pissarides and Weber (1989) for England, and Mitra and Sharma (2016) for India. The second approach is different variants of indirect or macro approach. There are several alternatives methods have been used under this approach; most prominent is the 'Currency Demand' approach. The approach is the most popular approach among all. It assumes that shadow transactions are often taken in the form of cash payments, so as to leave no traces for the authorities. An increase in the shadow economy will lead to upsurge the demand for currency. Cagan (1958) first used the currency demand approach, comparing currency demand and tax pressure for the United States' economy for the period 1919–55. The approach was further

[1] It is also called underground, shadow, second, unaccounted, unrecorded, irregular and hidden economy. In India, it is popularly called 'black money'.
[2] The other reason of the demonization is to concerns over a proliferation of counterfeit notes, the government claims that it is fuelling the drug trade and funding terrorism.
[3] But some economists say the move will have a limited impact as people will simply begin to accumulate black money in the new currency as soon as that becomes available. Noted Indian origin economists, Kushik Basu argued that "Its economics is complex and the collateral damage is likely to far outstrip the benefits". (see http://www.bbc.com/news/world-asia-india-37970965)

developed by Tanzi (1980, 1983), which estimated a currency demand function for the United States over the period 1929–80. Some other methods, for instance, Electricity Consumption method (see Lackó 1998) and the Transactions approach (see Feige, 1979), are also called indirect method. Finally, the modified version of the Model approach that pioneered by Weck (1983), Frey and Weck (1983), called MIMIC method, is recently used to estimate the black economy (e.g. Dell'Anno et al., 2007).

In this study, we attempt to estimate the size of the black economy induced by tax evasion in India. The black economy in developing countries, such as India, is apparently large due to the inefficiency in the tax system and regulation. However, barring a few exceptions, i.e. Chaudhuri et al. (2006) and Mitra and Sharma (2016), the recent related literature has mainly focused on OECD countries and the case of developing countries is unfairly ignored. We use the currency demand approach for estimation purpose. This approach is the most popular among all mainly because of its presumed simplicity and effectiveness (Ardizzi, et al. 2014). Moreover, we prefer currency model for analysis because India is a cash based economy and a substantial transaction especially in it large unorganized sector takes place in form of cash.

Recent development in time series econometrics suggests that the structural breaks can induce stochastic behaviour similar to an integrated process, which makes it difficult to differentiate between the lack of cointegration and a structural shift (Dropsy, 1996). The presence of structural changes may lead to a serious bias in the estimated coefficients. Moreover, it is now well established that accurate forecasting and empirical analysis of time-series data can depend critically on understanding the appropriate nature of structural change (e.g. Lee, List, and Stazicich, 2006). Thus, in the present study, we attempt address this issue by incorporating the issue of structural break in the analysis.

The issue of the size of the black economy is important for various reasons. For instance, in the case of India, it is of considerable political interest to know the size of black economy. An analysis using the standard scientific technique will provide a precise estimate and perhaps makes the speculative estimates irreverent. The knowledge of the magnitude is also relevant for a policy standpoint because it gauges most commonly use measures of the functioning of the economy, such as GDP growth, unemployment and tax revenue. These indicators might be significantly distorted by the existence of a non-negligible black economy (see Frey and Pommerehne, 1984).

The remainder of this paper is organized as follows. Section two discusses the model, approach and data issues. Section three describes empirical methodology, while the next section discusses the empirical results. The final section concludes the study.

2. The Model and Approach

The currency demand approach was first proposed and used by Cagan (1958) in the United States case. Much later Gutmann (1977) utilized the method however his analysis did not use any statistical techniques for the estimation. Tanzi (1980, 1983) adopted and modified the approach of Cagan and re-estimate, the size of the shadow economy for the United States. Tanzi used econometric method based on a demand for currency equation. An important modification made by Tanzi is including crucial explanatory factors which can explain the movement of currency demand. Therefore, the Tanzi approach is likely to perform better in estimating the size of the shadow economy in comparison with the earlier approaches. The theme of currency approach is that the shadow economy transactions are primarily undertaken in the form of cash payments in order to avoid detection from tax authority. The model shows that an increase in the size of the shadow economy will therefore increase the demand for currency. To exclude the resulting excess demand for currency due to other factors, other than the shadow economy demand, an equation for currency demand is estimated over time.

Several studies have used some variants of the currency or monetary approach for estimating the shadow economy. For instance, Bagachwa, and Naho, (1995) attempted to estimate the magnitude of, and changes in the second economy in Tanzania, to establish the extent to which official statistics misstate actual production of goods and services. Bajada (1999) aimed to provide the first known time-series estimate of the size of the Australian underground economy. Humérez Quiroz (2005) tried to estimate the size of the informal economy in Bolivia between 1990 and 2003, Bajada and Schneider (2003) produced a time series estimate of the size of the "cash economy" in Australia between 1967 and 2000, Isachsen *et al*. (1982) computed the size of black economy between 1952 and 1978.

We also adopted the currency approach with some important modification. Our procedures of estimating the size of the shadow economy is conducted in two steps: first, estimation of an aggregate currency demand equation; and second, estimate the excessive increase in currency demand unexplained by the conventional factors. Practically, firstly an estimate is made of the amount of currency used for black economic transactions. This is obtained as the difference in the current level of currency balances and the level when the tax burden is non-existent. Subsequently, the size of the hidden economy is computed by assuming that the income velocity for currency used in the black economy is the same as that used in the regular economy.

Our basic model of currency demand function is quite similar to that proposed by Tanzi (1982). It is specified as follows:

$$C_t = \alpha_1 + \alpha_2 X_t + \alpha_3 Y_t + u_t \qquad (1)$$

where C is the dependent variable represented by real currency holdings. X is a vector of explanatory variables traditionally considered to be the major determinants of currency and Y is a sensitive variable proxied by tax rate that stimulates underground economic activity; u is the stochastic disturbance term at the year t.

The currency demand will fall as interest rates and inflation increase, and will increase as the output increases. Following Isachsen, et al. (1982), we also include the Mitchell-Hawtry effect in the model. For this purpose, we consider consumption expenditure to GDP, represents the Mitchell-Hawtrey effect and when it increases, people need to hoard more currency in order to meet relatively increased purchases of goods and services. Increases in the number of commercial banking branches (BB) facilitate widespread access to banking services and will induce the public to put their savings into interest-earning financial assets or to open up bank accounts to avoid theft, fire, etc. (Bagachwa and Naho, 1995). Our real currency demand model for estimation is as follows:

$$lnC_t = \beta_0 + \beta_1 lnY_t + \beta_2 lnP_t + \beta_3 \ln(\frac{K}{Y})_t + \beta_4 i_t + \beta_5 lnBB_t + \beta_6 tax_t + \beta_7 Tech_t + e_t \quad (2)$$

where C, Y, P, K/Y, i, BB, tax is real currency, income proxied by GDP, price index proxied by CPI, private consumption to GDP, interest rate proxied by discount rate, number of commercial bank branches, average weighted tax rate, respectively in the period t. Tech is technology trend variable proxied by time trend. ln denotes natural logarithm. $\beta_s$are parameters to be estimated and e is the stochastic error term. For empirical analysis, we use annual data from 1970 to 2013. Details of variables and their source are described in Table 1.

Table 1: Data Description

Series	Data Description	Data Source
Tax rate (tax)	Average weighted personal income tax rate	Ministry of Finance, Govt. of India
GDP (Y)	Real GDP at current market price	WDI (2015)
Consumption/GDP (K/Y)	Final consumption expenditure, etc. (% of GDP)	WDI (2015)
Bank Branch (BB)	Branches of Scheduled Commercial banks in India	Reserve Bank of India
CPI (P)	Consumer Price Index	IFS (2015)
Interest Rate (i)	Discount Rate	IFS (2015)
real currency (C)	Currency in circulation deflated by CPI	Reserve Bank of India

3. Empirical Methodology

Unit root test with endogenous two-break

One major drawback of conventional unit-root tests is that it implicitly assumes that the model correctly specifies the deterministic trend. Following the work of Perron (1989), one can consider that the presence of structural change substantially reduces the power of unit-root tests. Zivot and Andrews (1992) proposed a unit-root test that allows for an endogenous structural break. Recently, Lumsdaine and Papell (1997) proposed a unit-root test that allows for two shifts in the deterministic trend at two known dates. A problem with the Lumsdaine-Papell unit-root test is that its critical values assume no breaks under the null hypothesis. This assumption is problematic as it may lead to conclude incorrectly that rejection of the null is evidence of trend stationarity, when, in fact, the series is difference-stationary with breaks (Lee and Strazicich 2003, 2004). With improvement, Lee and Strazicich (2003) have proposed the endogenous two-break *LM* unit root tests. The test incorporates structural breaks under the null hypothesis, and rejection of the minimum LM test provides evidence for stationarity of the series. Moreover, the Lee and Strazicich (2003) test also has higher power than the test of Lumsdaine and Papell (1997). The model has two variants, first, the Crash Model (model A) and the Break Model (model C). Both models are based on alternative assumptions about structural breaks. Model A allows for two shifts in the intercept and model C includes two shifts in the intercept and trend. We have used the Crash model for the analysis as in our case break the Crash model seems to be appropriate.

The Crash Model of Lee and Strazicich (2003) is specified as follows:

$$Z_t = [1, t, D_{1t}, D_{2t}] \qquad (4)$$

where $D_{jt} = 1$ for $t \geq T_{Bj} + 1, j = 1, 2,$ and 0 otherwise. The break date is denoted by T_{Bj}. The null and alternative hypotheses of model A are:

$$H_0: Y_t = \mu_0 + d_1 B_{1t} + d_2 B_{2t} + Y_{t-1} + v_{1t}$$

$$H_1: Y_t = \mu_0 + \gamma t + d_1 B_{1t} + d_2 B_{2t} + v_{2t}$$

where $DT_{jt} = t - T_{Bj}$ for $t \geq T_{Bj} + 1, j = 1, 2,$ and 0 otherwise; $B_{jt} = 1$ for $t = T_{Bj} + 1, j = 1, 2,$ and 0 otherwise; v_{1t} and v_{2t} denote the stationary error terms. The *LM* unit root test statistic can be obtained by estimating:

$$\Delta Y_t = \acute{\delta} \Delta Z_t + \varphi \bar{S}_{t-1} + \mu_t \qquad (5)$$

where $\bar{S}_t = y_t - \bar{\psi}_x - Z_t \bar{\delta}$, t=2,....,T; Δy_t is regressed on ΔZ_t to obtain estimates of $\bar{\delta}$; $\bar{\psi}_x = y_1 - Z_1 \bar{\delta}$ and the first observations of y_t and Z_t are y_1 and Z_1, respectively. The *LM* test statistics are provided by $\bar{\tau}$ which is the test statistic for the unit root null hypothesis that ϕ =0.

Testing Cointegration with structural breaks

In dealing with a Cointegrated model, the Gregory and Hansen test (1996) is used for one unknown structural break and the Bai and Perron (BP hereafter) test (2003) for dating multiple unknown structural breaks. Therefore, we use both tests, nevertheless, one may prefer BP test as it is possible that the system has more than one break in the analysis period. The BP methodology employs a multiple structural break model, with m breaks, i.e. (m+1) regimes.

To examine whether the relationship can be interpreted as a cointegrated relationship, we can apply Johansen et al. (2000) cointegration test. The technique uses the Johansen and Juselius (1990) framework to allow for trend and level breaks at several known points. In order to use traditional cointegration analysis, the method disregards observations after structural breaks by including impulse dummies. The number of impulse dummies after recognizing the breaks in the system, and the inclusion of these dummies implies a reduction in the effective sample. The technique uses two variants of the trace test for testing of cointegration relationship among p time-series. These are the Hl(r) and Hc(r) tests for when there are (q – 1) breaks in a linear trend or in a constant level of the data, respectively, where r denotes the cointegrating rank. The asymptotic distributions of the test statistics depend on the values of (p – r) and the locations of the break-points in the sample. These break-points are denoted $v_j = (t_j/t)$, where t is the full sample size and t_j is the last observation of the jth sub-sample; j = 1, 2, ….., q (for details, see Giles and Godwin, 2012).

The empirical macroeconomic models are subject to the problem of endogeneity. Therefore, fully modified ordinary least squares (FMOLS) method developed by Phillips and Hansen (1990) is used for the estimation in the cointegrating framework, which also corrects the serial correlation problem (Phillips, 1995). Our primary interest is to find out the long run relationship among the variables, without paying attention to the relationships among regressors therefore FMOLS estimator serve our purpose and we have not used the error correction mechanism (ECM).

4. Empirical Results

We begin our analysis with examining the stationarity of variables. A stationary time series is the one which exhibits mean reversion, has a finite, time invariant variance and the covariance between two values depends only on their distance apart in time and not on the exact timing of the observation. We employ Augmented Dickey-Fuller (ADF) test for unit root of our variables in consideration. Table 2 reports results of ADF tests with constant. Our variables ARE tested for stationarity at the levels as well as at first differences. Results show that all the variables are found to be integrated of order one i.e. I (1).

Table 1: Results of Unit Root (ADF) Tests

Variable	**At level**	At first difference
Currency	0.583335 (0.9876)	-5.262115** (0.0001)
Tax rate	-0.915861 (0.7732)	-5.243393** (0.0001)
GDP	3.312877 (1.0000)	-5.935386** (0.0000)
Consumption/GDP	-1.3328 (0.6057)	-8.787892** (0.0000)
Bank Branch	-1.0989 (0.7075)	-2.6699** (0.0877)
CPI	-0.73534 (0.8266)	-4.89945** (0.0002)
Interest Rate	-1.9291	-6.119753**

	(0.3163)	(0.0000)

** denotes significance at 5% level. 2. P-value in parenthesis.

One typical problem with ADF test is its lack of power. The failure to incorporate structural changes in testing the unit root of a time series is too often biased and thus results are not reliable (see Rappoport and Reichlin, 1989). In view of the potential instability in currency demand model associated with exceptional events like tax reforms and banking sector reforms, unit root tests that permit level and trend break are naturally suitable for testing the long run behavior of the currency demand. Therefore, we apply the LM unit root test with two endogenous breaks and results are presented in Table 3. Results reveal that the unit root null can be rejected in favor of the break stationary except for bank branch. As the minimum LM tests assume two breaks under the null, rejection of unit root null profoundly confirms that currency demand function is trend-stationary that are subject to structural change. However, our problem is we cannot incorporate all breaks in the system as they are several and our sample size is comparatively small.

Table 2: Results of Lee and Strazicich (2003) LM Test

Variable	S_{t-1}	Const.	Break1 date	$D1$	$DT1$	Break2 date	$D2$	$DT2$
Currency	-0.7842** (-5.663)	0.0008 (0.1230)	1988	0.0578** (3.4773)	0.0056 (0.879)	2003	-0.0281 (-1.532)	0.0489** (4.5382)
Tax rate	-1.0864** (-7.176)	- 0.0338** (-5.494)	1979	0.002 (-0.111)	0.0322* (1.752)	1997	0.0479** (1.977)	0.0244* (1.8292)
GDP	-0.8140** (-4.647)	0.0094* (2.629)	1982	0.0164* (1.766)	0.0009 (0.098)	2004	0.0009 (0.098)	0.0234** (4.680)
Consumption/GDP	- 1.1383**(- 6.488)	- 0.0051** (2.582)	1994	-0.0329* * (- 3.463)	0.0265** (4.781)	2004	0.0009 (0.098)	- 0.0276** (-4.269)
Bank Branch	-0.0140 (-0.532)	0.0251** (5.0532)	1985	0.0006 (0.121)	- 0.0541** (-19.213)	2003	-0.0036 (-0.728)	-0.0003 (-0.097)
CPI	-1.1989** (-8.707)	0.0159** (5.881)	1996	-0.0120 (-1.339)	0.0236** (4.553)	2005	-0.0003 (-0.029)	-0.0071 (-1.432)
Interest Rate	-0.959**	1.6047** (4.0310)	1989	-0.8875 (-1.121)	-0.1469 (-0.513)	2002	0.6864 (0.853)	- 1.6527**

	(-4.423)							(-2.754)

Notes: 1. This are results of Lee-Strazicich Unit Root Test (2003) Crash Model with 2 breaks. 2. The numbers in parenthesis are the t-statistics for the estimated coefficients. 3. The coefficient on S_{t-1}tests for the unit-root. 4. D1 and D2equal the breaks of the slope.

Next we test Gregory-Hansen Cointegration test, which indicates a cointegarting relationship among variables in the model. Specifically, minimum t-Statistic is found to be -4.38276 and it is statistically significant and break in the system detected to be in the year 1990. Subsequently, we obtain breakpoints in the system by applying Bai-Perron method. Results of the test are reported in Table 4 indicate for a structural break in the model. Thus, we can conclude that a stable long run relationship among the variables does not exist. Results of the BP test point out for a break in 1979. The break year in the system makes sense as in 1979 was the year stands out for tax reforms and important banking reforms in the country. Next, we perform the cointegration analysis in presence of the structural break in the system to determine whether the time series of these variables display a stationary process in a linear combination. We use the trend breaks (Hl(r)) variant of Johansen et al. (2000) cointegration test. The model accommodates structural breaks by including impulse dummies for the quantified breaks. The results are reported in Table 5, which suggest for three cointegrating vectors thus we can conclude that our variables in the model are cointegrated.

Table 4: Bai-Perron's Sequential F-statistic determined breaks

Break Test	F-statistic	Scaled F-statistic	Critical Value
0 vs. 1 * (year: 1979)	6.221936	31.10968**	18.23
1 vs. 2	3.489311	17.44656	19.91

Notes: 1. ** denotes significance at 5% level.2. Critical values are computed on basis of Bai-Perron (2003)

Table 5: Results of Johansen *et al*. (2000) cointegrating Test

H_0	r=0	r≤1	r≤2	r≤3	r≤4	r≤5	r≤6
Eigen Value	0.864	0.666	0.567	0.441	0.283	0.074	0.012
λ Trace	207.46**	123.45**	77.37**	42.15	17.75	3.71	0.499

Notes: 1. Critical values are calculated based on Giles and Godwin, 2012. 2. ** denotes significance at 5% level.

To estimate the currency demand equation, we employ FMOLS estimator and report results in column 1 of Table 6. Estimated coefficients are turned up on the expected line except for the price index (CPI), which is found to be negative. The dummy for the break and time trend are also estimated to be statistically significant. Most importantly, the tax variable is found to be not only positive and significant but also quite sizable indicating for a high sensitivity of currency demand due to changes in tax rate. The income elasticity is estimated to be 0.277, which is comparatively lower than the international findings (see Ahumada et al., 2007). Bank Branch is found to be significant and negative, indicating as the banking infrastructure spreads demand for currency falls, which makes economic sense. For a robustness check, we also use 'Dynamic OLS' (DOLS) estimator and report the results in column 2 of Table 6. These results are not in conformity with the FMOLS results, for instance, the coefficient of tax rate seems to be too large. FMOLS estimator is suited well in this case, therefore, we use results of the FMOLS estimates for further analysis.

Table 4: Results of Currency Demand Estimation

Variable	FMOLS	DOLS
Tax rate	0.221** (2.44)	0.317** (4.31)
GDP	0.277* (1.79)	1.545** (9.01)
Consumption/GDP	0.398* (1.73)	-0.596** (-2.35)
Bank Branch	-0.349** (-4.49)	-0.273** (-6.15)
CPI	-0.734** (-4.73)	-0.175 (-1.28)
Interest Rate	0.0001* (0.03)	0.002 (0.41)
Dummy 1979	0.051** (2.51)	0.1072** (8.81)
Trend	0.052** (6.41)	
Constant	1.297 (1.06)	-3.807** (-3.76)
$\bar{R}^2$	0.996	0.999

Notes: 1. ** denotes significance at 5% level. 2. t statistics in parenthesis.

We now need to compute the series of 'currency demand in the black economy' over the period. At first stage, results of the FMOLS estimate are solved to obtain values for the total amount of currency circulating in the economy as a whole over the period. We denote this series as C_t. In the next step, we again solve the model, with taxation equal to zero, which yields the value of currency demand without the black economy. We denote this solution C_{Rt}. The velocity of money V_t is obtained as:

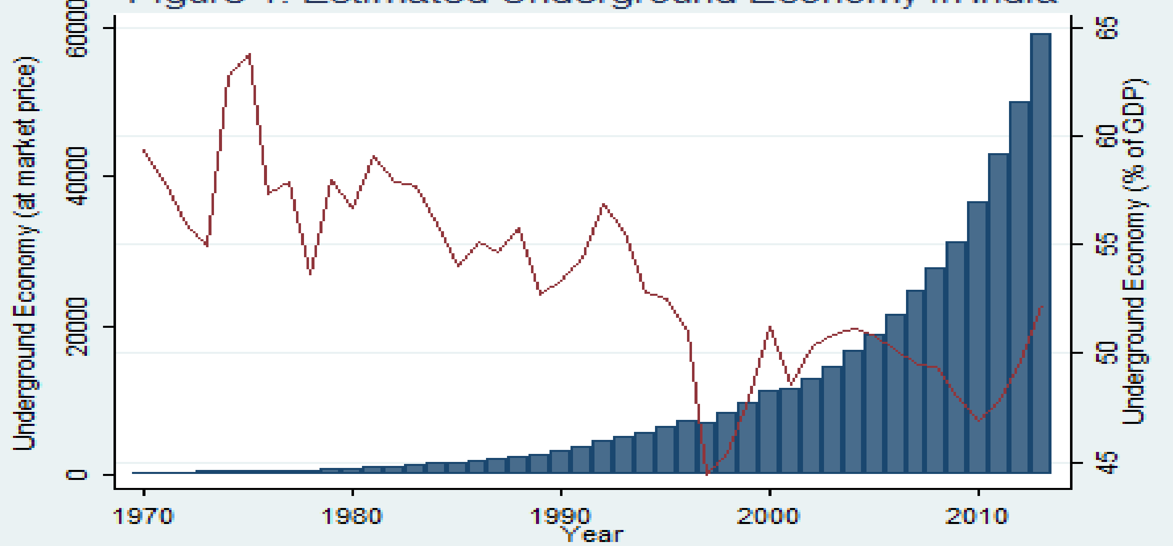
$$V_t = \frac{Y_t P_t}{C_t} \qquad (6)$$

where Y_t is GDP and P_t is price index (CPI). Assuming that velocity of the currency in the official and the black economy are the same; we estimate the black economy as:

$$Y_{bt} = (C_t\text{-}C_{Rt}) \times V_t \qquad (7)$$

The estimated black economy as a percentage of GDP is presented in Figure 1, which indicates that in India the black economy is quite large. Nevertheless, the projection also suggests that the fiscal reforms in important areas in 1990s helped in reducing the size of the black economy. Specifically, it was as large as 64% of the reported GDP in 1970s, in terms of current market value it was 280 billion Indian rupees. The size had gone down to 44% in 1997, but increase to 7000 billion rupees in value terms. More importantly, it has been constantly around 50% of GDP in the last two decades. In the last year of analysis, 2013, it was 52% of GDP, which is around 60000 billion in Indian currency, while in terms of U.S. dollar, it was 957 billion.

Figure 1: Estimated Underground Economy in India



Value in billion Indian Rupees at current price, source: author's estimation

5. Conclusion and Policy Suggestions

In this paper, using a variant of currency model, we estimated the size of the underground or black economy in India from 1971 to 2013. The study contributes to the widely debated and policy relevant literature in terms selection of variables, and methodology. Our attempt is in background of the sudden move of government of India to demonetize the higher value currency notes. Computing the size of black economy size an economy is always a challenging task and it is more so for a country that has a sizable unorganized sector. The theoretical background of empirical literature on methods of estimating the black economy is still lacking. The methods of estimation are criticize on several accounts. Most important is studies have straight forward employed different estimation approaches on different countries, without seriously justifying the suitability of approaches in a specific context. We carefully opt the currency approach for analysis as it is quite suitable in the Indian case. Furthermore, our econometric model incorporated structural breaks in cointegration framework, which is an improvement over the existing studies. We also used FMOLS estimators for estimation that has taken care several possible problems, for instance, endogenity, in estimation and yield unbiased estimates.

The analysis of currency demand model for India suggests for a structural break in the system. Incorporating the break in the analysis indicate that currency demand variables share a cointegrating relationship with it determinants. The projection suggests that the country has a sizable black economy nevertheless it has reduced to some extent in the last two decades. The size of the black economy was peaked to above 60% of GDP in 1970s as tax rate was extremely high at that time. But a range of reforms in taxation, industrial licensing, financial sector and external sector, have left little incentive for black economy generation, consequently, it size is decreased to less than 50% in 1990s and 2000s.

The Indian economy has witnessed a series of fiscal reforms since early 1990s. For instance, the peak personal and corporate income tax rate that had been constantly above sixty percent of income in 1970s and 1980s. It has been brought down to a reasonable level (30%) in the recent years. Such policies perhaps helped to reduce the size of the black economy. Considering the estimated high tax rate elasticity to currency demand, it seems that a further reduction in marginal tax rate will shrink the size of black economy. Furthermore, considering the large size of the black economy in the country, fiscal initiatives should also include much better enforcement and penalties for evaders and simplification of tax regime. Every step will have its pros and cons, for instances, increasing enforcement will generate more revenue, but often at a considerable resource cost. Higher penalties amount may lead to inequity between those few that are caught and those that escape detection. The benefit of tax simplification is that it will reduce the ambiguities that are breeding grounds for tax evasion schemes offered time to time. Finally, a reduction in marginal tax rates may lead to decline in tax evasion. Regulatory rules, such as price control, and financial sector may be reformed further to leave less space for corrupts and tax evaders.

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